General Information About Everyday Mathematics

The K-6 Everyday Mathematics curriculum encourages teachers and students to go beyond simple arithmetic. The emphasis is to develop more meaning to math by integrating data gathering, analysis, probability, geometry, patterns and algebra. Mathematics becomes part of the ongoing classroom routines, outdoor play, and the spare transitional moments that occur every day. Highlights of the curriculum include:

- Problem-solving about everyday situations
- Linking past experience to new concepts
- Sharing ideas through discussion
- Developing concept readiness through hands-on activities and explorations
- Cooperative learning through partner and small group activities
- Increasing "fact-power" through games
- Providing ongoing review and applications
- Solving problems using multiple strategies
- Using mathematics in daily classroom routines
- Providing a variety of assessment opportunities
- Enhancing home-school partnerships

The authors of Everyday Mathematics believe that it is crucial to begin laying the groundwork for mathematical literacy at an earlier age than offered in traditional programs. Based on their own research, and other supporting research, the authors also firmly believe that children are capable of learning a great deal more than previously expected. For this reason the scope of the K-6 Everyday Mathematics curriculum includes the following mathematical strands:

- Algebra and Uses of Variables
- Data and Chance
- Geometry and Spatial Sense
- Measures and Measurement
- Numeration and Order
- Patterns, Functions and Sequences
- Operations: Mental Arithmetic and Number Systems and Algorithms and Procedures

Philosophy Statement:
Everyday Mathematics is the elementary component of the University of Chicago School Mathematics Project (UCSMP), which is a long-term project designed to improve mathematics at all grade levels.

We have heard for years of the need for a richer mathematics curriculum. We have also heard about how poorly our students score in mathematics compared to other countries. Reports from international studies show U.S. students learning much less mathematics than students in many other countries. For too many years, we have ignored the actual capabilities of our children. We have not taken advantage of children's potential for mathematical understanding, information and creativity. The results of extensive research with children and teachers led to the development of UCSMP's Everyday Mathematics.

Everyday Mathematics attempts to remedy this problem by giving your child a wide range of mathematical experiences and ideas. We achieve this by integrating mathematics instruction into other curricular areas, like science, social studies, and literacy.

Everyday Mathematics is written based on a continuous curriculum, meaning a specific concept is introduced from five to fifteen times in five different ways over a few year period, giving your child many opportunities to grasp the idea when developmentally ready to do so. For example, multiplication concepts are introduced in kindergarten and first grade with skip counting, in second grade through building arrays, and focused on in depth in third grade. Your child has many exposures to the concepts before mastery is expected.

Your child is involved in sharing ideas through discussions. Children gain important mathematical insights by building on discoveries. This promotes good listening habits and a receptive attitude towards the ideas of others. Children are constantly talking about how they solved a problem and what they are thinking mathematically. By discussing their thoughts, they are clarifying their learning.

Your child will be working cooperatively with classmates. Children are more enthused working together rather than working alone. They learn to work as a team, emphasizing cooperation rather than competition. They solve problems based on real life situations.

The math classroom has changed dramatically. We can no longer teach only arithmetic skills. Our focus needs to be much broader to adapt to the 21st century. Your child is involved in activities focusing on numeration, counting, operations, relations, problem solving, mental arithmetic, data collection, geometry, measures, reference frames, money and rules and patterns.

Everyday Math Expectations

What Everyday Math Does:

- ∞ Applies content and knowledge into real life skills
- ∞ Allows for cooperative learning with classmates
- ∞ Stresses the importance of basic facts in a variety of methods
- ∞ Acknowledges children's experiences and intuitions about mathematics
- ∞ Provides problem-solving experiences in real-life contexts while allowing for various learning styles
- ∞ Promotes practice through meaningful activities and games
- ∞ Integrates content throughout the mathematics curriculum
- ∞ Provides a continuous curriculum, ensuring that children encounter and apply concepts over time, deepening mathematical understanding
- ∞ Helps students develop an excitement for math

What Everyday Mathematics Does Not Do:

- ∞ Encourage only one answer or method
- ∞ Teach by telling
- ∞ Encourage rote practice or memorization of rules in isolation
- ∞ Teach topics or strands in isolation

Two key principles form the basis of Everyday Mathematics, include the following:

1. Mathematics means more when it is rooted in real-life problems and situations--children's mathematical knowledge should grow from their experience.
2. Children can learn more than is usually expected because they know more than they are given credit for. Experience gives children a rich store from which they can develop mathematical insight, reasoning, and creativity.

Typical Lessons

The Everyday Mathematics curriculum was designed and field-tested one grade level at a time. Although lessons, activities, and experiences differ in each grade, an Everyday Mathematics lesson typically includes:

Math Message - Used as a lesson opener to provide a focus for the day.

Explorations - Hands-on group activities in which students investigate and discover mathematics through a variety of manipulative-based activities.

Instruction and Discussion - Teacher-facilitated dialog and modeling of important mathematics concepts and skills.

Individual/Small-Group/Partner Activities - Using Activity Books or Journals, students work through daily activities that reinforce mathematical understanding.

Math Boxes - Teacher-generated or reproducible handouts that contain short problems for students to practice and refine understanding of concepts. Math Boxes provide ongoing review and assessment.

Fact Practice and Games - Alternatives to traditional work sheets and pencil-and-paper drills, skill-based games ensure automaticity and mastery of basic skills and concepts.

Minute Math® and 5-Minute Math - Provide mental-mathematics opportunities throughout transitional times during the day.

Home Links® and Study Links® - Short activities to be completed at home with help from a family member.